

Abstract**OVERVOLTAGE PROTECTION**

5 A semiconductor component is suitable for limiting transient voltages on the supply lines of a system having at least three supply lines, one of the supply lines being a current sink. The semiconductor comprises: at least three input means for connection to respective ones of the supply lines; and for each input means, a respective overvoltage-triggered semiconductor protection unit. Each protection unit comprises a multi-junction diode

10 which has a threshold voltage at which it changes from a high-impedance state to a low-impedance state and a respective further diode connected in shunt with it and in the opposite sense to it. Each multi-junction diode is connected in the same sense between a respective input means and a common terminal; and each protection unit is adapted to use a lateral turn on current. A shielding diffusion is provided between adjacent protection

15 units for blocking lateral current flow between the adjacent protection units.